Claims

[c1]   A method for assembling a control for use with a cooling device, said method comprising the steps of:

providing an attached control that is configured to control the cooling device; and

installing a wireless interface in the attached control.

[c2]   A method according to Claim 1 wherein said step of installing a wireless interface comprises the step of installing at least one of a satellite interface, an infra-red interface, and a radio frequency (RF) interface.

[c3]   A method according to Claim 1 further comprising the step of providing a control device including at least one of a satellite interface, an infra-red interface, and a radio frequency (RF) interface, wherein the control device is in wireless communication with the attached control through the interface of the control device.

[c4]   A method for controlling a cooling device, said method comprising the steps of:

providing a cooling device; and

providing a control device in wireless communication with the cooling device and configured to control the cooling device.

[c5]   A method according to Claim 4 wherein said step of providing a cooling device comprises the step of providing a cooling device coupled to a wireless interface including at least one of a satellite interface, an infra-red interface, and a radio frequency (RF) interface.

[c6]   A method according to Claim 4 wherein said step of providing a cooling device comprises the step of providing at least one of a refrigerator, a refrigerator/freezer, and a freezer.

[c7]   A method according to Claim 4 wherein said step of providing a cooling device comprises the step of providing at least one of an industrial refrigerator and an industrial freezer.

[c8]   A method according to Claim 4 wherein said step of providing a control device

comprises the step of providing a control device coupled to a wireless interface including at least one of a satellite interface, an infra-red interface, and a radio frequency (RF) interface, wherein the control device is in wireless communication with the cooling device through the interface.

[c9]   A method according to Claim 4 wherein said step of providing a control device comprises the step of providing a control device including a memory configured to store data regarding the cooling device.

[c10]   A method according to Claim 4 wherein said step of providing a control device comprises the step of providing a control device including a memory configured to store data regarding the cooling device, the data including at least an alarm history for the cooling device.

[c11]   A method according to Claim 4 wherein said step of providing a control device comprises the step of providing a control device including a memory configured to store data regarding the cooling device, the data including at least one defrost specification for the cooling device.

[c12]   A method according to Claim 4 wherein said step of providing a control device comprises the step of providing a control device including a memory configured to store data regarding the cooling device, the data pertaining to at least one of an evaporator, a condenser, a compressor, and a fan.

[c13]   A method according to Claim 4 wherein said step of providing a control device comprises the step of providing a control device including a memory configured to store data regarding the cooling device, the data including at least a service history for the cooling device.

[c14]   A method according to Claim 4 wherein said step of providing a control device comprises the step of providing a control device including a memory configured to store data including a historical status of the cooling device and a current status of the cooling device.

[c15]   A method according to Claim 4 further comprising the step of providing a user interface for the control device, the interface enabling a user to specify setpoint

parameters.

[c16]   A method according to Claim 4 further comprising the step of providing a user interface for the control device, the interface enabling a user to specify setpoint parameters including at least one of an upper setpoint and a lower setpoint.

[c17]   A method according to Claim 4 further comprising the step of providing a user interface for the control device, the interface enabling a user to specify defrost parameters.

[c18]   A method according to Claim 4 further comprising the step of providing a user interface for the control device, the interface enabling a user to specify defrost parameters including at least one of a defrost interval, a defrost duration, and a defrost method.

[c19]   A method according to Claim 4 further comprising the step of providing a user interface for the control device, the interface enabling a user to specify at least one of an allowable appliance temperature and an allowable evaporator temperature.

[c20]   A method according to Claim 4 further comprising the step of providing a user interface for the control device, the interface enabling a user to specify alarm parameters.

[c21]   A method according to Claim 4 further comprising the step of providing a user interface for the control device, the interface enabling a user to specify alarm parameters including an alarm delay parameter, an alarm interval parameter, an alarm buzzer enablement parameter, and an alarm sounding duration.

[c22]   A method according to Claim 4 wherein said step of providing a cooling device comprises the step of providing a cooling device including an attached control having a wireless interface, said step of providing a control device comprises the step of providing a control device in wireless communication with the cooling device via the attached control.

[c23]   A method for controlling a plurality of cooling devices, said method comprising the steps of:

installing a wireless interface in each cooling device; and

controlling the cooling devices with a wireless control device.

[c24]   A method according to Claim 23 wherein said step of controlling the cooling devices comprises maintaining an asset owner database that includes data identifying an owner of each cooling device.

[c25]   A method according to Claim 23 wherein said step of controlling the cooling devices comprises maintaining an asset type database that includes data identifying a type for each asset.

[c26]   A method according to Claim 23 wherein said step of controlling the cooling devices comprises maintaining an asset database that includes data corresponding to each asset.

[c27]   A method according to Claim 23 wherein said step of controlling the cooling devices comprises maintaining a location database that identifies a location for each asset.

[c28]   A method according to Claim 23 wherein said step of installing a wireless interface comprises the step of installing at least one of a satellite interface, an infra-red interface, and a radio frequency (RF) interface.

[c29]   A method for assembling a cooling device, said method comprising:
providing a wireless interface; and
installing the wireless interface in a cooling device such that the cooling device is controllable via wireless communication.

[c30]   A method according to Claim 29 wherein said step of providing a wireless interface comprises the step of providing a wireless interface configured to transmit cooling device data including current temperature and status of at least one of a compressor and an evaporator.

[c31]   A method according to Claim 29 wherein said step of providing a wireless interface comprises providing a wireless interface configured to wirelessly receive setpoint parameters.

[c32]   A method according to Claim 29 wherein said step of providing a wireless interface comprises the step providing a wireless interface configured to communicate wirelessly to receive setpoint parameters including at least one of an upper setpoint and a lower setpoint.

[c33]   A method according to Claim 29 wherein said step of providing a wireless interface comprises the step of providing a wireless interface configured to communicate wirelessly to receive defrost parameters including at least one of a defrost interval, a defrost duration, and a defrost method.

[c34]   A method according to Claim 29 wherein said step of providing a wireless interface comprises the step of providing a wireless interface configured to communicate wirelessly to receive alarm parameters including at least one of an alarm delay parameter, an alarm interval parameter, an alarm buzzer enablement parameter, and an alarm sounding duration.

[c35]   A method for controlling a cooling device including a wireless interface, said method comprising the steps of:
          providing a wireless control device; and
          inputting into the wireless control device at least one parameter for the cooling device.

[c36]   A method according to Claim 35 wherein said step of inputting comprises the step of inputting at least one setpoint parameter.

[c37]   A method according to Claim 35 wherein said step of inputting comprises the step of inputting at least one defrost parameter regarding at least one of a defrost interval, a defrost duration, and a defrost method.

[c38]   A method according to Claim 35 wherein said step of inputting comprises the step of inputting an allowable appliance temperature and an allowable evaporator temperature.

[c39]   A system for controlling a cooling device, said system comprising;
          an attached control; and
          a wireless interface operationally coupled to said attached control.

[c40]   A system according to Claim 39 wherein said wireless interface comprises at least one of a satellite interface, an infra-red interface, and a radio frequency (RF) interface.

[c41]   A system according to Claim 39 further comprising a control device comprising at least one of a satellite interface, an infra-red interface, and a radio frequency (RF) interface, said control device in wireless communication with said attached control through said interface of said control device.

[c42]   A system for cooling product, said system comprising:
a cooling device; and
a control device in wireless communication with said cooling device.

[c43]   A system according to Claim 42 wherein said cooling device comprises at least one of a satellite interface, an infra-red interface, and a radio frequency (RF) interface.

[c44]   A system according to Claim 42 wherein said cooling device comprises at least one of a refrigerator, a refrigerator/freezer, and a freezer.

[c45]   A system according to Claim 42 wherein said cooling device comprises at least one of a commercial refrigerator and a commercial freezer.

[c46]   A system according to Claim 42 wherein said control device comprises at least one of a satellite interface, an infra-red interface, and a radio frequency (RF) interface, wherein the control device is in wireless communication with the cooling device through the interface.

[c47]   A system according to Claim 42 wherein said control device comprises a memory configured to store data regarding the cooling device therein.

[c48]   A system according to Claim 42 wherein said control device comprises a memory configured to store data regarding the cooling device therein, the data including an alarm history for the cooling device.

[c49]
          A system according to Claim 42 wherein said control device comprises a memory configured to store data regarding the cooling device therein, the data

including at least one defrost specification for the cooling device.

[c50] A system according to Claim 42 wherein said control device comprises a memory configured to store data regarding the cooling device therein, the data regarding at least one of an evaporator, a condenser, a compressor, and a fan.

[c51] A system according to Claim 42 wherein said control device comprises a memory configured to store data regarding the cooling device therein, the data including a service history for the cooling device.

[c52] A system according to Claim 42 wherein said control device comprises a memory configured to store data regarding historical status of the cooling device and current status of the cooling device.

[c53] A system according to Claim 42 wherein said control device configured to display a user interface enabling a user to specify setpoint parameters.

[c54] A system according to Claim 42 wherein said control device configured to display a user interface enabling a user to specify setpoint parameters including an upper setpoint and a lower setpoint.

[c55] A system according to Claim 42 wherein said control device configured to display a user interface for the control device, the interface enabling a user to specify defrost parameters.

[c56] A system according to Claim 42 wherein said control device configured to display a user interface enabling a user to specify defrost parameters including a defrost interval, a defrost duration, and a defrost method.

[c57] A system according to Claim 42 wherein said control device configured to display a user interface enabling a user to specify at least one of an allowable appliance temperature and an allowable evaporator temperature.

[c58] A system according to Claim 42 wherein said control device configured to display a user interface enabling a user to specify alarm parameters.

[c59] A system according to Claim 42 wherein said control device configured to display a user interface enabling a user to specify alarm parameters including

an alarm delay parameter, an alarm interval parameter, an alarm buzzer enablement parameter, and an alarm sounding duration.

[c60] A cooling system comprising:

a plurality of cooling devices each comprising a wireless interface; and

a control device in wireless communication with each said cooling device.

[c61] A system according to Claim 60 wherein said control device comprises an asset owner database that includes data identifying an owner of each said cooling device.

[c62] A system according to Claim 60 wherein said control device comprises an asset type database that includes data identifying an asset type for each said cooling device.

[c63] A system according to Claim 60 wherein said control device comprises an asset database that includes data regarding each said cooling device.

[c64] A system according to Claim 60 wherein said control device comprises a location database that includes data identifying a location of each said cooling device.

[c65] A system according to Claim 60 wherein said wireless interface comprises at least one of a satellite interface, an infra-red interface, and a radio frequency (RF) interface.

[c66] A computer configured to:

wirelessly communicate with a cooling device; and

receive from a user at least one parameter for the cooling device.

[c67] A computer according to Claim 66 further configured to receive from the user at least one setpoint parameter.

[c68] A computer according to Claim 66 further configured to receive at least one defrost parameter regarding at least one of a defrost interval, a defrost duration, and a defrost method.

[c69] A computer according to Claim 66 further configured to receive from the user

an allowable appliance temperature and an allowable evaporator temperature.